REMARKS

Claims 10, 19 and 20 have been amended, as suggested by the Examiner, to recite that the longer side of the flow element is adjacent to and in contact with the combustion chamber wall such that the longer side is defined by a plane that is substantially parallel to and encompasses the combustion chamber wall (Office Action, p. 2). Support for this amendment may be found in FIG. 4 and page 12, lines 16-26 of the Substitute Specification, for example. Accordingly, no new matter is presented by these amendments.

Claims 10-26 are pending in the present application. The Examiner rejected claims 10-26 under 35 USC 102 as being anticipated by Senior. The Examiner also rejected claims 10-13 and 19-26 under 35 USC 102 as being anticipated by Beebe et al. The Examiner also rejected claims 15-18 under 35 USC 103 as being unpatentable over Beebe in view of Senior. Applicant respectfully requests reconsideration and allowance of the pending claims in view of the following amendments attached herein and the following remarks.

Response to Rejections Under Section 102:

Independent claim 10 recites a flow element arranged in the inner space, formed between the heat shield elements and the combustion chamber wall exposed to a cooling medium, for selective adjustment of a cooling medium stream, where the flow element is arranged on the combustion chamber wall. As discussed above, based on the Examiner's suggestion, independent claim 10 was amended, to recite that a longer side of the flow element is adjacent and in contact with the combustion chamber wall such that the longer side is defined by a plane that is substantially parallel to and encompasses the combustion chamber wall. None of the cited prior art references, alone or in combination discloses such limitations, and accordingly, amended independent claim 10 is patentable.

The Applicant appreciates the Examiner's helpful suggestion on effective wording to "properly exclude the Senior reference" (Office Action, p. 2). As discussed in the previous Amendment, in rejecting the previous version of claim 10, the Examiner contended that the baffle disclosed in FIG. 4 of Senior is the recited flow element (April 2010 Amendment, p. 2). However, the Applicant argued that the shape of the baffle in FIG. 4 of Senior indicates that the baffle protrudes into the cooling medium stream with the shorter side abutting the combustion

chamber wall (April 2010 Amendment, p. 3). The Examiner argued that since the baffle in Senior has a triangular cross-section, any of the sides could be arguably adjacent to the combustion chamber wall, but that the suggested claim amendment language would exclude the triangular cross-sectional baffle of Senior (Office Action, p. 2). Indeed, Senior fails to disclose that a longer side of the flow element is adjacent and in contact with the combustion chamber wall such that the longer side is defined by a plane that is substantially parallel to and encompasses the combustion chamber wall. Accordingly, amended independent claim 10 is now in condition for allowance.

Beebe et al. discloses a combustor 10 (see FIG. 1) with a preburner section 12, a fuel/air preparation section 14, a catalytic reactor assembly 34, a main combustion assembly 16 and a transition piece 18 (col. 3, lines 62-65). The preburner assembly 12 includes a preburner casing 20, an end cover 22, a fuel nozzle 24, a flow sleeve 26 and a preburner combustion liner 28 within the sleeve 26 (col. 4, lines 3-5). Combustion within the preburner section 12 occurs within the combustion liner 28. Preburner combustion air is directed within the liner 28 by the flow sleeve 26 and enters the liner 28 through holes formed in the liner 28 (col. 4, lines 9-12).

The Examiner contended that Beebe et al. discloses the claimed invention, as recited in the previous version of independent claim 10. The Examiner made several unsupported contentions regarding the Beebe et al. reference. The Examiner contended that the flow sleeve 26 is the recited flow element, and that Beebe et al. somehow discloses that the flow sleeve 26 is "arranged in the inner space capable of selective adjustment of a cooling medium stream, the flow element arranged on the combustion chamber wall, wherein the longest side of the flow element abuts the combustion chamber wall" and that the flow sleeve 26 "has a rectangular shaped portion at the head of the combustor where the longer side forms a portion of the surface and an approximately triangular shaped portion upstream of the rectangular portion." (Office Action, p. 6-7). As discussed above, Beebe et al. merely discloses that the preburner combustion liner 28 is positioned within the flow sleeve 26, and that the preburner combustion air is directed within the liner 28 by the flow sleeve 26. There is no teaching to support that the flow sleeve 26 has a rectangular shape at a head of the combustor and a triangular shape upstream of the rectangular portion. Additionally, as discussed above, independent claim 10 has been amended, to recite that a longer side of the flow element is adjacent and in contact with the combustion

chamber wall such that the longer side is defined by a plane that is substantially parallel to and encompasses the combustion chamber wall. Indeed, Beebe et al. fails to disclose this claim recitation, and accordingly, amended independent claim 10 is patentable.

Additionally, the Examiner contended that "Conserving mass dictates the flow element will cause an increase in the velocity of the cooling air" and that "the heat shield...will inherently have a higher cooling efficiency than without the flow element." (Office Action, p. 6-7). As with the above contentions, none of the teaching of Beebe et al. supports these statements. Additionally, as the Examiner is aware, "'In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.' Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)" MPEP 2112. Indeed, the Examiner failed to provide the necessary basis in fact and/or technical reasoning to support the alleged inherent characteristic that the liner 28 will have a higher cooling efficiency than without the flow sleeve 26 and that the flow sleeve 26 will cause an increase in the velocity of the cooling air. Accordingly, the rejection of independent claim 10 is fatally deficient.

In view of the above, amended independent claim 10 is patentable. As discussed above, independent claims 19 and 20 were amended in a similar manner as independent claim 10. The arguments set forth above with regard to amended independent claim 10 are restated herein with regard to amended independent claims 19 and 20. Accordingly, amended independent claims 10, 19 and 20 are patentable. Their dependent claims, which recite yet further distinguishing features, are also patentable, and require no further discussion herein.

Response to Rejections Under Section 103:

The Examiner rejected claims 15-18 under 35 USC 103 as being unpatentable over Beebe in view of Senior. As discussed above, amended independent claim 10 is patentable. Claims 15-18, which recite yet further distinguishing features, are also patentable, and require no further discussion herein.

Conclusion

For the foregoing reasons, it is respectfully submitted that the objections and rejections set forth in the outstanding Office Action are inapplicable to the present claims. Please grant any extensions of time required to enter this paper. The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including fees for additional claims and terminal disclaimer fee, or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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